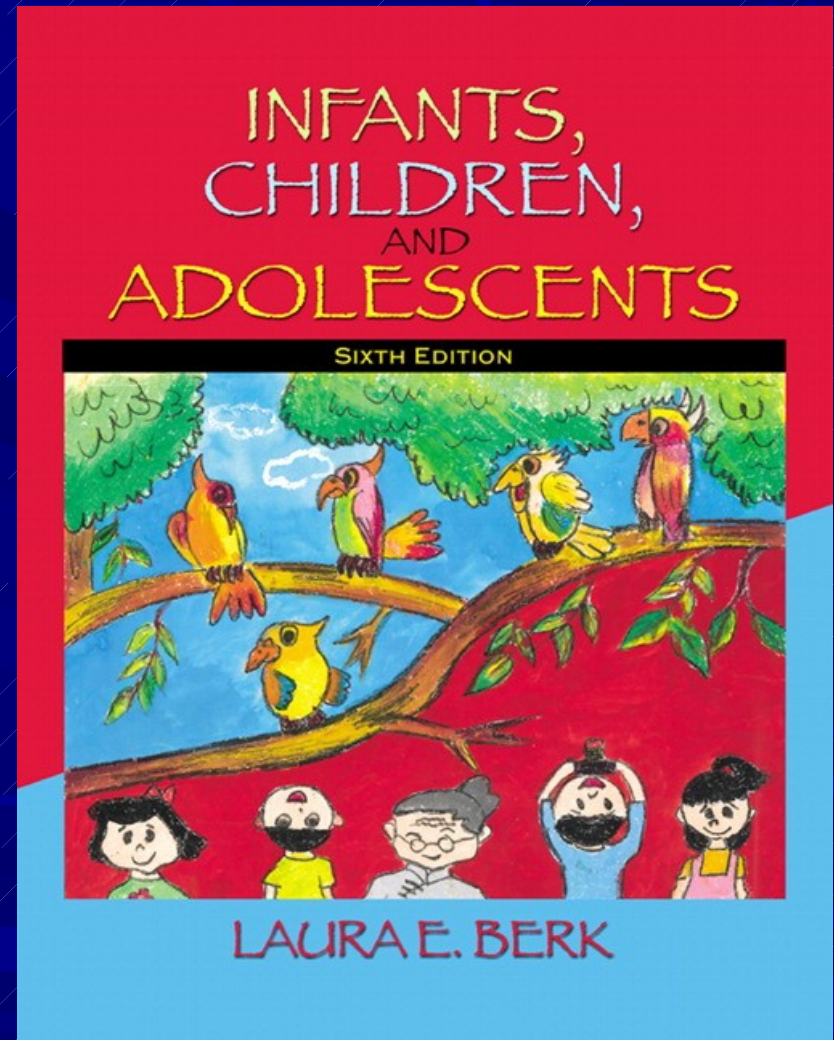


# Chapter 8: Physical Development in Early Childhood



# Body Growth

## ■ Body Growth Slows

- Ages 2 – 6 grow 2 – 3 inches per year
- 5 pounds per year
- Growth curve tapers



# Body Proportions

Children become leaner and longer while becoming more coordinated

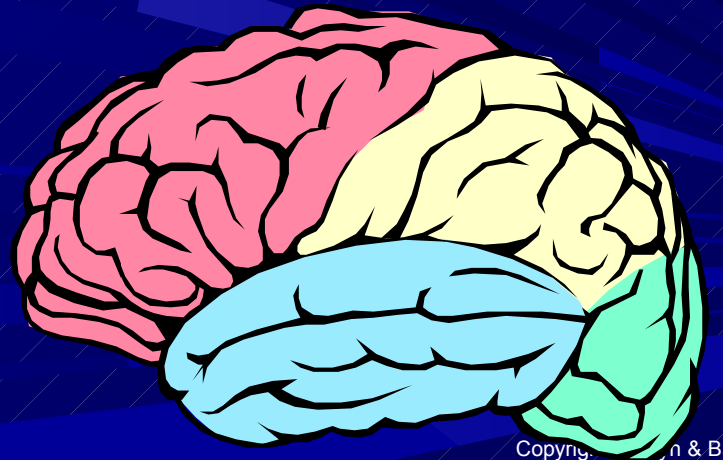
- Baby fat is gone
- Longer legs
- Leaner
- Better coordination and balance

# Teeth

- Start to loose baby teeth
- Have most of adult teeth by 6 ½ years

# Brain Development in Early Childhood

- Have a dominant hand for drawing, writing, eating
- The result of dominant cerebral hemisphere for motor activity



# Influences on Physical Growth and Health

- **Heredity and Hormones**
  - Growth hormone (GH)
- **Emotional Well-Being**
  - Psychosocial/deprivation  
dwarfism



# Influences cont: Sleep

- Need 10 to 11 hours a night
- GH released at night
- Naps not needed

# Influences cont: Nutrition

- Require same quality of food as adults
- May eat less/be picky since growth is slowed
- May not have regular eating patterns – no need to panic

# Influences cont: **Infectious Diseases**

- E.g., measles
- **Immunization needed** – controversial today
- Disease is major cause of malnutrition
- **Poor diet suppresses immune system**

# Childhood Injuries

- E.g., car accidents, child drowning
- Leading cause of death in North America
- 40% - 50% of childhood deaths
- May suffer from permanent injury if survive
- Most can be prevented
- SES strongly correlated with childhood injury
- Child temperament correlated as well

# Motor Skill Development in Early Childhood



## ■ Gross Motor Skills

- Walking, running
- Catching, throwing, swinging, riding

## ■ Fine Motor Skills

- Self-help: dressing, eating
- Drawing

# Changes in Gross and Fine Motor Skills During Early Childhood

AGE	GROSS MOTOR SKILLS	FINE MOTOR SKILLS
2–3 years	<p>Walks more rhythmically; hurried walk changes to run</p> <p>Jumps, hops, throws, and catches with rigid upper body</p> <p>Pushes riding toy with feet; little steering</p>	<p>Puts on and removes simple items of clothing</p> <p>Zips and unzips large zippers</p> <p>Uses spoon effectively</p>
3–4 years	<p>Walks up stairs, alternating feet, and down stairs, leading with one foot</p> <p>Jumps and hops, flexing upper body</p> <p>Throws and catches with slight involvement of upper body; still catches by trapping ball against chest</p> <p>Pedals and steers tricycle</p>	<p>Fastens and unfastens large buttons</p> <p>Serves self food without assistance</p> <p>Uses scissors</p> <p>Copies vertical line and circle</p> <p>Draws first picture of person, using tadpole image</p>
4–5 years	<p>Walks down stairs, alternating feet</p> <p>Runs more smoothly</p> <p>Gallops and skips with one foot</p> <p>Throws ball with increased body rotation and transfer of weight on feet; catches ball with hands</p> <p>Rides tricycle rapidly, steers smoothly</p>	<p>Uses fork effectively</p> <p>Cuts with scissors following line</p> <p>Copies triangle, cross, and some letters</p>
5–6 years	<p>Increases running speed</p> <p>Gallops more smoothly; engages in true skipping</p> <p>Displays mature throwing and catching pattern</p> <p>Rides bicycle with training wheels</p>	<p>Uses knife to cut soft food</p> <p>Ties shoes</p> <p>Draws person with six parts</p> <p>Copies some numbers and simple words</p>

Sources: Cratty, 1986; Malina & Bouchard, 1991; Haywood & Getchell, 2005.

# Individual Differences in Motor Skills

## ■ **Body Build**

- Taller, longer limbed better at running and jumping

## ■ **Sex**

- Boys: better at power and force (gross motor)
- Girls: fine motor skills, balance, foot movement



# Enhancing Early Childhood Motor Development



- **Mastered through everyday play** *Experience based*
  - Formal lessons have little impact
- **Daily routines support fine motor development**
- **Provide appropriate play space and equipment**
- **Promote fun and positive attitude**